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10/777,832	02/11/2004	Ikuya Yagisawa	16869S-105400US	5908
20350 7590 08/06/2007 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			EXAMINER SURYAWANSHI, SURESH	
			ART UNIT 2115	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/777,832

Applicant(s)

YAGISAWA ET AL.

Examiner

Suresh K. Suryawanshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 7/16/07 RCE.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22,23,25-28,30-33,35 and 36 is/are rejected.
- 7) ☒ Claim(s) 24,29 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 22-36 are presented for examination.

#### ***Claim Objections***

2. Claim 23 is objected to because of the following informalities: “when.” should have been “when”. Appropriate correction is required.
3. Claim 24 is objected to because of the following informalities: “the disk supply instruction part” should have been “the disk power supply instruction part”. Appropriate correction is required.
4. Claim 26 is objected to because of the following informalities: “logical, unit” should have been “logical unit”. Appropriate correction is required.
5. Claim 27 is objected to because of the following informalities: “the second logical unit configuring the second logical unit” should have been “the second disk device configuring the second logical unit”. Appropriate correction is required.
6. Claim 27 is objected to because of the following informalities: “the first logical units” should have been “the first logical unit” at line 13. Appropriate correction is required.

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7. Claim 32 is objected to because of the following informalities: “the second logical unit configuring the second logical unit” should have been “the second disk device configuring the second logical unit”. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 22-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

10. Applicants claim a computer within a computer system. For example, in claim 1, applicants write, “A computer system comprising: a storage system ...; and a computer ...” Clearly claiming another computer within a computer system. This subject matter is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

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11. Similarly, applicants claim an access request part. The examiner is unable to find such an access request part in the provided specification or drawings. This subject matter is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

12. Further, applicants claim a disk power supply instruction part. The examiner is unable to find such a disk power supply instruction part in the provided specification or drawings. This subject matter is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

13. Claims 22-36 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

14. Applicants claim a computer within a computer system. For example, in claim 1, applicants write, "A computer system comprising: a storage system ...; and a computer ...". Clearly claiming another computer within a computer system. This subject matter is not

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described in the specification or shown in a drawing. The examiner submits that it would require undue experimentation for one of ordinary skill in the art to make and use the invention for the reason set forth hereinabove.

15. Similarly, applicants claim an access request part. The examiner is unable to find such an access request part in the provided specification or drawings. The examiner submits that it would require undue experimentation for one of ordinary skill in the art to make and use the invention for the reason set forth hereinabove.

16. Further, applicants claim a disk power supply instruction part. The examiner is unable to find such a disk power supply instruction part in the provided specification or drawings. The examiner submits that it would require undue experimentation for one of ordinary skill in the art to make and use the invention for the reason set forth hereinabove.

### ***Claim Rejections - 35 USC § 102***

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 22-23, 25-28, 30-33, 35-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Guha et al (US Patent 7,035,972<sup>1</sup>; hereinafter Guha).

19. As per claim 1, Guha discloses a computer system comprising:

a storage system including a first disk device configuring a first logical unit, a second disk device configuring a second logical unit, and a controller for accessing to the first logical unit and the second logical unit [Fig. 1; a disk device 20a configuring a first logical unit 50; a second disk device 10c configuring a second logical unit 60, and a controller 30 for accessing to the first logical unit and the second logical unit; col. 7, lines 37-67]; and

a computer including an access request part requesting an access to the first logical unit and the second logical unit [col. 4, lines 22-25; only the disk drives that are in use are powered on; col. 5, line 62 – col. 6, line 4; write or read access requests] and a disk power supply instruction part instructing the controller to turn on or off the first disk device configuring the first logical unit and the second disk device configuring the second logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-63; col. 18, lines 17-39; clearly the controller turns on or off a disk device configuring a logical unit based on an instruction received from a disk power supply unit or a central processing unit (CPU) of the system or via an input from a user],

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<sup>1</sup> Prior art cited by the examiner in the prior office action.

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wherein after the disk power supply instruction part determines that the access request part terminates requesting the access to the first logical unit, the disk power supply instruction part issues an instruction to turn off the first disk device configuring the first logical unit to the controller [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-63; col. 18, lines 17-39; clearly the disclosed invention is designed to optimize the power conservation of the system and it does by turning off a disk device automatically when the access request to the disk device is terminated; for example, a write request completion or a read request completion], and

wherein, based on the instruction, the controller turns off the first disk device configuring the first logic unit independently of the second disk device configuring the second logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-63; col. 18, lines 17-39; clearly base on the instruction, the controller turns off a disk device configuring a logical unit independent of another disk device configuring a second logical unit].

20. As per claim 27, Guha discloses that in a method used in a computer system which comprises:

a storage system including a first disk device configuring a first logical unit, a second disk device configuring a second logical unit, and a controller for accessing to the first logical unit and the second logical unit [Fig. 1; a disk device 20a configuring a first logical unit 50; a



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second disk device 10c configuring a second logical unit 60, and a controller 30 for accessing to the first logical unit and the second logical unit; col. 7, lines 37-67]; and

a computer including an access request part requesting an access to the first logical unit and the second logical unit [col. 4, lines 22-25; only the disk drives that are in use are powered on; col. 5, line 62 – col. 6, line 4; write or read access requests] and a disk power supply instruction part instructing the controller to turn on or off the first disk device configuring the first logical unit and the second disk device configuring the second logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-63; col. 18, lines 17-39; clearly the controller turns on or off a disk device configuring a logical unit based on an instruction received from a disk power supply unit or a central processing unit (CPU) of the system or via an input from a user],

the method comprising steps of:

issuing an instruction to turn off the first disk device configuring the first logical unit to the controller by the disk power supply instruction part, after the disk power supply instruction part determines that the access request part terminates that the access requesting part terminates requesting the access to the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-63; col. 18, lines 17-39; clearly the disclosed invention is designed to optimize the power conservation of the system and it does by turning off a disk device

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automatically when the access request to the disk device is terminated; for example, a write request completion or a read request completion], and

turning off the first disk device configuring the first logical unit independently of the second disk device configuring the second logical unit based on the instruction by the controller [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-63; col. 18, lines 17-39; clearly base on the instruction, the controller turns off a disk device configuring a logical unit independent of another disk device configuring a second logical unit].

21. As per claim 32, Guha discloses a computer program product used in a computer system, wherein the computer system includes:

a storage system including a first disk device configuring a first logical unit, a second disk device configuring a second logical unit, and a controller for accessing to the first logical unit and the second logical unit [Fig. 1; a disk device 20a configuring a first logical unit 50; a second disk device 10c configuring a second logical unit 60, and a controller 30 for accessing to the first logical unit and the second logical unit; col. 7, lines 37-67]; and

a computer accessing to the first logical unit and second logical unit, the computer program product comprising:

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a recording medium [Fig. 1];

an access request part request means, recorded on the recording medium, for requesting an access to the first logical unit and the second logical unit [col. 4, lines 22-25; col. 5, line 62 – col. 6, line 4; write or read access requests]; and

a disk power supply instruction means, recorded on the recording medium, for instructing the controller to turn on or off the first disk device configuring the first logical unit and the second disk device configuring the second logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-63; col. 18, lines 17-39; clearly the controller turns on or off a disk device configuring a logical unit based on an instruction received from a disk power supply unit or a central processing unit (CPU) of the system or via an input from a user],

wherein after the disk power supply instruction means determines that the access request means terminates requesting the access to the first logical unit, the disk power supply instruction means issues an instruction to turn off the first disk device configuring the first logical unit to the controller [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-63; col. 18, lines 17-39; clearly the disclosed invention is designed to optimize the power conservation of the system and it does by turning off a disk device automatically when the access request to the disk device is terminated; for example, a write request completion or a read request completion], and

wherein, based on the instruction, the controller turns off the first disk device configuring the first logic unit independently of the second disk device configuring the second logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-63; col. 18, lines 17-39; clearly base on the instruction, the controller turns off a disk device configuring a logical unit independent of another disk device configuring a second logical unit].

22. As per claim 23, Guha discloses wherein when the disk power supply instruction part determines that the first logical unit is to be accessed by the access request part, the disk power supply instruction part instructs the controller to turn on the first disk device configuring the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-67; col. 18, lines 17-39; turning on a disk device when there is a write or read request], and wherein after the disk power supply instruction part instructs the controller to turn on the first disk device configuring the first logical unit, the access request part starts accessing to the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-67; col. 18, lines 17-39; the controller turns on a disk device of a logical unit when is instructed to do so].

23. As per claim 25, Guha discloses wherein the access request part is configured to request an access to the second logical unit after a completion of accessing to the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; disk drives are individually powered on and off, according to usage requirements], wherein the disk power supply instruction part determines whether or not the access request part starts accessing to the second logical unit [col. 6, lines 47-

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62; deterministic manner powering on or off a disk driver], and wherein when the access request part start accessing to the second logical unit, the disk power supply instruction part instructs the controller to turn off the first disk device configuring the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; disk drives are individually powered on and off, according to usage requirements].

24. As per claim 26, Guha discloses wherein the disk power supply instruction part determines whether or not the access to the second logical unit terminates [col. 6, lines 47-62; deterministic manner powering on or off a disk driver], and wherein when the access from the access request part to the second logical unit terminates, the disk power supply instruction part instructs the controller to turn off the second disk device configuring the second logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; disk drives are individually powered on and off, according to usage requirements].

25. As per claim 28, Guha discloses instructing the controller to turn on the first disk device configuring the first logical unit by the disk power supply instruction part, when the disk power supply instruction part determines that the first logical unit is to be accessed by the access request part [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-67; col. 18, lines 17-39; turning on a disk device when there is a write or read request]; and starting accessing to the first logical unit by the access request part after the disk power supply instruction part instructs the controller to turn on the first disk device configuring the first logical

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unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-67; col. 18, lines 17-39; the controller turns on a disk device of a logical unit when is instructed to do so].

26. As per claim 30, Guha discloses wherein the access request part is configured to request an access to the second logical unit after a completion of accessing to the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; disk drives are individually powered on and off, according to usage requirements], and the method further comprising steps of: determining by the disk power supply instruction part whether or not the access request part starts accessing to the second logical unit [col. 6, lines 47-62; deterministic manner powering on or off a disk driver]; and instructing the controller to turn off the first disk device configuring the first logical unit by the access request part when the access request part starts accessing to the second logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; disk drives are individually powered on and off, according to usage requirements].

27. As per claim 31, Guha discloses determining by the disk power supply instruction part whether or not the access to the second logical unit terminates [col. 6, lines 47-62; deterministic manner powering on or off a disk driver], and instructing the controller to turn off the second disk device configuring the second logical unit when the access from the access request part to the second logical unit terminates [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; disk drives are individually powered on and off, according to usage requirements].

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28. As per claim 33, Guha discloses wherein when the disk power supply instruction means determines that the first logical unit is to be accessed by the access request means, the disk power supply instruction means instructs the controller to turn on the first disk device configuring the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-67; col. 18, lines 17-39; turning on a disk device when there is a write or read request], and wherein after the disk power supply instruction means instructs the controller to turn on the first disk device configuring the first logical unit, the access request means starts accessing to the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; col. 7, lines 54-67; col. 18, lines 17-39; the controller turns on a disk device of a logical unit when is instructed to do so].

29. As per claim 35, Guha discloses wherein the access request means is configured to request an access to the second logical unit after a completion of accessing to the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 -- col. 6, line 4; disk drives are individually powered on and off, according to usage requirements], wherein the disk power supply instruction means determines whether or not the access request means starts accessing to the second logical unit [col. 6, lines 47-62; deterministic manner powering on or off a disk driver], and wherein when the access request means starts accessing to the second logical unit, the disk power supply instruction means instructs the controller to turn off the first disk device configuring the first logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; disk drives are individually powered on and off, according to usage requirements].

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30. As per claim 36, Guha discloses wherein the disk power supply instruction means determines whether or not the access to the second logical unit terminates [col. 6, lines 47-62; deterministic manner powering on or off a disk driver], and wherein when the access from the access request means to the second logical unit terminates, the disk power supply instruction means instructs the controller to turn off the second disk device configuring the second logical unit [Fig. 1; col. 4, lines 13-41; col. 5, line 62 – col. 6, line 4; disk drives are individually powered on and off, according to usage requirements].

***Allowable Subject Matter***

31. Claims 24, 29 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

32. Applicants' arguments filed on 7/16/07 have been fully considered but they are not persuasive.

33. In the remarks, Applicants argued in substance that (1) Guha does not clearly disclose a subject which issues instructions to turn on/off the disk device.



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34.' As to point (1), Guha does not have to disclose expressly about the subject which issues instructions to turn on/off the disk device because it is inherent to a computer system for performing anything in the computer system including turning on or off a device or a circuit, the computer system uses instructions to instruct. In the computer system, a central processing unit (CPU) is utilized to process instructions and instructions are stored in either within CPU or in a system memory. The examiner submits this very fact is not only known in the art but also is the key part of any computer system.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suresh K. Suryawanshi whose telephone number is 571-272-3668. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Suresh K Suryawanshi